

Title (en)  
JOINT BODY

Title (de)  
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CORPS DE RACCORD

Publication  
**EP 2716441 A4 20141015 (EN)**

Application  
**EP 12790380 A 20120524**

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Abstract (en)  
[origin: EP2716441A1] A composite shaped product of the present invention is a joined body which is excellent in shock resistance, and which includes shaped products (B1) and (B2) which contain a carbon fiber and a thermoplastic resin, in which the shaped products (B1) and (B2) are disposed on both sides of a composite substrate (A) that contains a continuous fiber such as a polyester fiber and a thermoplastic resin so that the composite substrate (A) is interposed between the shaped products (B1) and (B2), and the shaped products (B1) and (B2) are heat-welded to each other at a joining portion (C) through a through hole (D) of the composite substrate (A).

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CPC (source: EP KR US)  
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Citation (search report)  
• [A] WO 2005054018 A1 20050616 - BOSCH GMBH ROBERT [DE], et al  
• [A] US 2009056882 A1 20090305 - SANO MASAHIDE [JP], et al  
• See references of WO 2012161348A1

Cited by  
EP3023781A1; CN110312617A; RU2748732C2; US11110691B2; WO2018149761A1

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